

II. AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims of the application.

1. (Original) A system for transmitting encoded video signals, comprising:
 - a system for partitioning encoded video data into a plurality of streams,
 - a system for determining a priority for each of a plurality of streams of encoded video data; and
 - a system for assigning a variable modulation rate to each stream of encoded video data based on the determined priority.
2. (Original) The system of claim 1, wherein streams determined as having a relatively high priority are assigned a lower modulation rate than streams determined as having a relatively low priority.
3. (Original) The system of claim 1, wherein streams determined as having a relatively low priority are assigned a higher modulation rate than streams determined as having a relatively high priority.
4. (Original) The system of claim 1, further comprising a system that ensures that an average modulation rate substantially conforms to a predetermined target rate for the plurality of streams.

5. (Original) The system of claim 1, wherein the system for partitioning partitions the encoded video data based on a criteria selected from the group consisting of: distinctions between frame type, distinctions between header and non-header data, distinctions between base layer and enhancement layer streams present in a scalable coded video, and distinctions in video packets containing data corresponding to at least one macroblocks.
6. (Original) The system of claim 1, wherein the priority of each stream is determined based on an MPEG frame type, and wherein streams containing I frames are determined to have a relatively higher priority than streams containing P frames, and streams containing P frames are determined to have a relatively higher priority than streams containing B frames.
7. (Original) The system of claim 1, wherein the priority of a stream containing at least one macroblock is determined based on motion and texture information contained in the macroblock.
8. (Original) The system of claim 1, wherein the system for determining priority assigns a relatively higher priority to MPEG header data than it assigns to non-header MPEG data.

9. (Original) The system of claim 1, wherein the priority of a stream is based on base and enhancement layers, and wherein a relatively higher priority is assigned to base layers than is assigned to enhancement layers.

10. (Original) An encoder for encoding and transmitting video data, comprising:
- a system for selecting a coding bit rate of the encoder;
 - a system for partitioning encoded video data into a plurality of streams;
 - a system for determining a priority for each of the plurality of streams of encoded video data; and
 - a system for assigning one of a plurality of possible modulation rates to each stream of encoded video data based on the determined priority.
11. (Original) The encoder of claim 10, wherein the plurality of possible modulation rates includes a low modulation rate below the coding bit rate and a high modulation rate above the coding bit rate.
12. (Original) The encoder of claim 11, wherein streams determined as having a relatively high priority are assigned the low modulation rate.
13. (Original) The encoder of claim 11, wherein streams determined as having a relatively low priority are assigned the high modulation rate.
14. (Original) The encoder of claim 11, further comprising a system that ensures that an average modulation rate is maintained at the coding bit rate for the plurality of streams.
15. (Original) A program product stored on a recordable medium, which when executed, includes a system for transmitting encoded video data, the program product comprising:

means for determining a priority for each of a plurality of streams of encoded video data;
and

means for selecting a modulation rate from a set of modulation rates for each stream of encoded video data based on the determined priority.

16. (Currently Amended) The program product of claim 15, further comprising encoding means that determines a coding bit rate of the plurality of streams, wherein the coding bit rate is selected between ~~and~~ an upper and lower bound of the set of modulation rates.

17. (Original) The program product of claim 16, further comprising means for ensuring that an average modulation rate is maintained at the coding bit rate for the plurality of streams.

18. (Currently Amended) The program product of claim 15, wherein the ~~assigning~~ selecting means ~~assigns~~ selects a higher modulation rate to lower priority streams and ~~assigns~~ selects a lower modulation rate to higher priority streams.

19. (Original) A method of encoding and transmitting video data, comprising the steps of:
selecting a coding bit rate between an upper and lower bound of an available set of modulation rates;
encoding the video data at the selected coding bit rate;
determining a priority for each of a plurality of streams of encoded video data; and
assigning one of a plurality of possible modulation rates to each stream of encoded video data based on the determined priority.

20. (Original) The method of claim 19, comprising the further step of:

ensuring that an average transmission rate each of the plurality of streams substantially conforms with the selected coding bit rate.

21. (Original) A decoder for decoding encoded video data made up of different streams, wherein the different streams were transmitted using different modulation schemes determined based on a priority of each stream, and wherein the decoder includes a system for detecting and decoding the different modulation schemes.